

Gold King Mine spill – Update of USGS sampling efforts

Personnel from the USGS Colorado Water Science Center (COWSC), Utah Water Science Center (UTWSC), New Mexico Water Science Center (NMWSC), and the Crustal Geophysics and Geochemistry Science Center (CGGSC), have been actively participating in sampling efforts and data analysis related to the Gold King mine spill.

Activities to date include:

Friday August 7, 2015. A team of five from the NMWSC arrived at the Animas and San Juan River gages at Farmington, NM. The goal was to collect water quality samples in the Animas and San Juan Rivers before and during passage of the spill plume. The team was on-site from Friday night until Sunday afternoon. Sample collection sites coincided with the location of USGS streamgages: Animas River at Farmington (09364500), before and during the plume; San Juan River at Farmington (09365000), during the plume; San Juan River at Shiprock (0936800), before and during the plume; San Juan River at Four Corners (09371010), both samples before the plume. Samples will be tested for major ions, trace metals, and mercury at the USGS National Water Quality Lab. Field parameters (pH, specific conductivity, dissolved oxygen, and water temperature) were collected at the time of sampling. A continuous water-quality sonde was deployed on the Animas River at Farmington on Saturday morning and has continued to record field parameters (pH, SC, DO, and temperature) since that time.

Tuesday, August 11, NMWSC personnel deployed automatic samples at the Animas at Farmington (09364500) and San Juan at Farmington (09365000) gages. Two samplers were deployed at each location and programmed to collect daily or turbidity triggered samples.. Discharge measurements were taken at each location to compute loads from the suspended sediment samples.

Tuesday August 11, UTWSC personnel collected a water quality sample at the San Juan River near Bluff, UT gage (09379500). The sample will be analyzed for total and dissolved metals.

Wednesday August 12, NMWSC personnel deployed a second, five-parameter (pH, SC, DO, temperature, and turbidity) sonde at San Juan at Farmington (09365000). A composite water-quality sample was collected at each site, and bed sediment samples were collected. An additional set of water quality and sediment samples may be collected at Aztec in conjunction with National Park Service monitoring there.

COWSC and CGGSC personnel are still deployed and collecting additional sediment and water quality samples at various locations. Updates regarding this effort will be provided by Friday August 14.